In the Specification

Please amend page 8 line 25 – page 9 line 26 as follows:

In the arrangement of figures 1 and 2, traffic is transported over the subscriber loop in asynchronous minicells. The engineering operations channel (EOC) is framed and byte oriented, one EOC frame being equivalent to one line-code super-frame 301, the frame structure being illustrated in figure 3. The EOC channel contains a number information elements, these principally comprising a super-frame synchronisation pattern 302, generic indicator bits 303, transport protocol indicator bits 304 and EOC messages. The format of the EOC messages is that of the AAL2 common part sub-layer packets defined in the ITU draft recommendation I363.2 the content of which is incorporated herein by reference. The EOC message format further incorporates a special service specific convergence sub-layer defined for VDSL physical layer EOC applications.

The first byte of the EOC message field comprises a six bit pointer 305, a sequence number bit and parity bits. The pointer identifies the start of the first valid mini-cell in the EOC frame. The EOC message field is followed by minicells 306 which are packed into ATM cells as defined by the AAL2 protocol.

In a modification of the technique illustrated in Figure 4, the EOC synchronisation pattern is provided by the header of an AAL2 common port sublayer (CPS) packet with a special channel identifier (CID) 401 which contains as payload the indicator bits as defined above. In this embodiment, delineation of super-frame boundaries is based on the known super-frame length and consequently on the known periodic arrival of valid CPS-packet header error control (HEC) bits 402. Initial delineation may be implied by the link start-up process, or may be subsequently re-established by hunting for a number of correct HEC determinations and detection of the unique CID on predicted superframe boundaries. Further, loss of super-frame delineation may be detected by detection of a predetermined number of HEC failures in a given period. Control of the super-frame delineation process can be modelled on the state-machine used for ATM cell delineation.

Please amend page 10 lines 6-20 as follows:

Any number of AAL2 CPS-packets may be included in a superframe, but padding bytes are inserted to ensure that superframe header synchronisation. Optionally network timing reference phase information can be carried in the mini-cell where the transport system clock is not synchronised to an NTR.

A6

Where the user terminal is provided with a register, this may be used to store command and control information. Access to the register may be effected via the messaging scheme illustrated in figure 5. The scheme includes register access messages 501 to write information into and to read information from the register, and acknowledgement messages 502 which confirm to the exchange that a read and/or write instruction has been performed. The messaging scheme may also accommodate simple command messages that require no acknowledgement, e.g. a message reporting an imminent shut-down of transmission, by the use of a short message field 503. A further short message field 504 provides for the insertion of indicators as required.

Please amend page 11 line 25 – page 12 line 2 as follows:

A7

An alternative method for transporting Narrow-band traffic 602, 603 is by the use of circuit emulation in which an SSCS based ATM AAL1 with time stamps relies on transport of the NTR by the transport system(carried for example as a phase stamp in the synchronisation mini-cell); or by plesiochronous multiplexing of null encapsulated narrow band traffic with autonomous timing recovery. This is illustrated in figure 6a which refers to synchronous transport and figure 6b which refers to plesiochronous transport. For synchronous transport (figure 6a) the timing byte 601 is a signed integer giving the offset from the NTR phase. It is also possible to use two bytes each for the NTR phase and user timing phase.

Please amend page 12 lines 14-34 as follows: